US EPA-States Technical Meeting on Well File Review July 15, 2014 STATE ATTENDEES

David D. Andrews, Western Colorado Engineering Supervisor, Colorado Oil and Gas Conservation Commission

David Andrews works out of COGCC's Rifle, Colorado office as the Western Colorado Engineering Supervisor. COGCC's engineering group primarily regulates downhole operations in oil and gas wells. Andrews has been with COGCC since January 2006, performing work in the D-J Basin and the Piceance Basin. Prior to joining COGCC, he spent nearly 12 years in environmental consulting, performing site investigation and soil and ground water remediation work, mostly for the oil and gas industry. Andrews earned a BS degree in Geological Engineering from Michigan Technological University and MS degree in Civil Engineering from Wayne State University. He is currently a student in the Process Technology Program at Colorado Mountain College in Rifle. He is a licensed Professional Engineer in Colorado, Michigan and Wyoming, and he is a licensed Professional Geologist in Wyoming.

Tim Baker, Manager Pollution Abatement, Oklahoma Corporation Commission

Tim Baker has held the Manager of Pollution Abatement position since 1989, overseeing much of the environmental areas of jurisdiction of the Oil and Gas Conservation Division, including the Underground Injection Control (UIC) department. He has worked on various working groups with the Ground Water Protection Council, the Interstate Oil and Gas Commission, and US EPA. During his tenure at the OCC Baker has worked as manager of Field Operations, Technical Services, and UIC. Prior to joining the OCC, Baker worked in the Industrial and Solid Waste Division of the Oklahoma State Department of Health where he worked on Class I industrial waste disposal wells and industrial waste disposal sites. He also spent time as a geologist for the Oklahoma Water Resources Board working on ground water supplies, water quality, and field work. Baker has a BS degree in Geology from Kansas University.

Joseph F. "Jackie" Devall, District Manager, Shreveport District, Louisiana Office of Conservation

Jackie Devall is the Shreveport District Manager for the Louisiana Office of Conservation. He has 50 years of regulatory experience as a petroleum engineer with the Office of Conservation. His areas of expertise include well design, well construction, well permitting, oil/gas field operations, and hydraulic fracturing operations. Devall holds a BS degree in Petroleum Engineering from Louisiana State University.

David P. "Dave" Elfert, Director, Geological Oil and Gas Division, Louisiana Office of Conservation

Dave Elfert is the Director of the Geological Oil and Gas Division for Louisiana's Office of Conservation. He has 25 years of regulatory experience at the Office of Conservation as a petroleum geologist. His areas of expertise include subsurface geology, well construction, oil/gas unitization, USDW protection,

and hydraulic fracturing operations. Elfert earned a MS degree in Geology from the University of Southern Mississippi.

Stuart Ellsworth, Engineering Manager, Colorado Oil and Gas Conservation Commission

Stuart Ellsworth has thirty years of diverse engineering and geologic experience. He is the Engineering Manager for the Colorado Oil and Gas Conservation Commission (COGCC). His responsibilities include managing a 13 member staff, who review drilling permits, completion reports, workover plans, cementing and casing repairs, plugging and abandonment procedures, spacing orders and reservoir economics for Commission approval. He has implemented programs including the Wattenberg Bradenhead Testing Program, East Mamm Creek Study, and the Adjacent Wellbore Policy. Prior to working for the COGCC he worked for engineering and oil and gas companies throughout the Rocky Mountains, Mid-Continent, Saudi Arabia and Algeria. He is a Colorado Professional Engineer and a Licensed Geologist with BS degrees in Geology and Civil Engineering. Ellsworth is a member of the Society of Petroleum Engineers.

David Todd Fugitt, Geology Supervisor, Ground Water Section, Arkansas Natural Resources Commission

Todd Fugitt has served as Geology Supervisor for the Ground Water Section of the Arkansas Natural Resources Commission since 1987. His responsibilities include supervision of statewide ground water protection and management programs; designation of critical ground water areas; supervision of the Arkansas Water Well Construction Commission licensing, regulatory, and well construction reporting program; assistance with promulgation of rules and regulations; drafting of proposed water law; and the coordination of federal grant programs. Prior to his current post Fugitt worked as water well investigator for the Commission, responsible for hydrogeologic investigations and inspections of water wells and driller's logs to verify compliance with standards. He also conducted inspections and worked with legal staff to prosecute unlicensed drillers through administrative hearings and criminal court procedures. Fugitt worked for the US Geological Survey as a hydrologist technician before joining the Commission where he was responsible for interpretation of driller logs, development of hydrologic maps and reports, and assistance with preparing cross-sections and field surveys of floodplain areas. He earned a BS degree in Geology from Arkansas Tech University and is a registered professional geologist in Arkansas.

Tom Harris, Director, Technology Assessment Division, Louisiana Department of Natural Resources

Tom Harris is the Director of the Technology Assessment Division at the Louisiana Department of Natural Resources. He has worked in the environmental field, first with the Louisiana Department of Environmental Quality, then with the Louisiana Department of Natural Resources, since 1995. He served as Division Administrator overseeing the remediation of sites where the soil or ground water has been contaminated from 2005 until early 2014. Harris helped develop and implement Louisiana's Risk Evaluation/Corrective Action Program (RECAP). He earned his BS degree in Biochemistry from Louisiana State and his MS degree in Environmental Toxicology from the Tulane University School of Public Health.

Virginia Hullinger, Technical Review Coordinator, Oil and Gas Conservation Division, Oklahoma Corporation Commission

Virginia Hullinger is the Technical Review Coordinator for the Technical Group at the Oklahoma Corporation Commission Oil and Gas Conservation Division. The group reviews all the wells drilled, reentered or recompleted in the state of Oklahoma, along with spacing orders, increased density orders, location exceptions, commingling, tax rebate program, flaring, and water floods. Hullinger began as an oil and gas specialist and has experience in many of the technical reviews required in the Oil and Gas Division. She has previously worked for Amoco Production Company in Oklahoma and Colorado and Texas Oil & Gas Corp. Hullinger graduated from the University of Oklahoma with a BS degree in Geological Engineering.

Lloyd Kirk, Director of External Affairs, Oklahoma Department of Environmental Quality

Lloyd Kirk's experience includes 10 years in the energy sector for several companies where his positions included logging engineer, safety engineer, safety manager and Environmental Health and Safety Director. He currently oversees ODEQ's permit assistance efforts for new and established companies. Additionally, the Office of External Affairs offers small business assistance, technical and regulatory assistance and customer assistance. Kirk also directs ODEQ's outreach events and serves as the Small Business Ombudsman for Oklahoma. The Office of External Affairs is an ambassador of ODEQ to the public and regulated community. Kirk has more than 30 years of diverse experience from regulatory agencies and corporations in Oklahoma, Texas and Kansas. During that time he has partnered with EPA and other federal agencies. Kirk is a native Oklahoman, born and raised in Perry. He is a graduate of Oklahoma State University with a degree in Engineering Technology. He graduated from Southern Nazarene University with a MS degree in Management.

Charles Maguire, Director, Radioactive Materials Division, Office of Waste, Texas Commission on Environmental Quality

Charles Maguire is currently the Director of TCEQ's Radioactive Materials Division in the Office of Waste. The three program areas in that division include Radioactive Materials Disposal, Uranium Mining, and Underground Injection Control. Previously, Maguire served as Director of the Water Quality Division, where the primary function is issuance of wastewater and stormwater discharge permits. He joined TCEQ in January 2006 as a Team Leader for the Agriculture Permitting Team in the Water Quality Division and held that position until becoming Manager of the Water Quality Assessment Section. In October 2008, he became the Assistant Director of the newly formed Water Quality Planning Division and served in that capacity until October 2009 when he became the Director of the Water Quality Division. In 2012 Maguire was chosen by the Executive Management of TCEQ to head the Radioactive Materials Division. He holds a BS degree in Aerospace Engineering and a MBA from Texas A&M University and is also a graduate of the Governor's Executive Development Program.

Craig Pearson, Seismologist, Railroad Commission of Texas

Craig Pearson is the seismologist for the Railroad Commission of Texas (RRC). He was hired to address the cause(s) of earthquake swarms occurring in various locations in Texas that may be associated with

hydrocarbon production, or produced water disposal in UIC wells, both activities regulated by the RRC. Pearson has hands on experience with oil well drilling and completion techniques through his employment with Halliburton Services as a Cementer, Acid Treater, Frac Treater and Special Operator. He also developed sensing tools, field procedures and data analysis techniques while conducting early research in hydraulic fracture mapping funded by the Gas Research Institute while employed by Teledyne Geotech. Pearson was responsible for locating, developing and maintaining potable water supplies for both agricultural and municipal users during his tenure as ranch manager for Steerhead Ranches in Upton, Crockett and Reagan counties of west Texas, and while serving as Vice President of the Upton County Water District, a water supply district for the cities of Rankin and McCamey. He received his BS degree in Geology from the University of Texas of the Permian Basin, MS degree in Exploration Geophysics from Southern Methodist University and a PhD in Geophysics from Southern Methodist University.

Seth Pelepko, Chief, Oil and Gas Subsurface Activities Section, Pennsylvania Department of Environmental Protection

Seth Pelepko is the Subsurface Activities Section Chief for the Pennsylvania Department of Environmental Protection's Bureau of Oil and Gas Planning and Program Management. His areas of interest include stray gas migration case work and gas well integrity. He has previously worked as a petrographer and hydrogeologist, and received a BS degree in Earth Sciences in 1998 from the Pennsylvania State University and MS degree in Geology from the University of Delaware. He earned his Professional Geologist's license in 2004.

Kellye Rila, Director, Water Availability Division, Office of Water, Texas Commission on Environmental Quality

Kellye Rila has been employed by the Texas Commission on Environmental Quality and its predecessor agencies since 1993. She is currently the Director of the Water Availability Division in the Office of Water. Previously, she was the Manager of the Water Rights Permitting & Availability Section, the Team Leader for the Water Rights Permitting Team, and a project manager responsible for processing Water Rights applications. Her entire career with the Commission has been in the area of Water Rights.

Milton Rister, Executive Director, Railroad Commission of Texas

Milton Rister was appointed Executive Director of the Railroad Commission of Texas on October 1, 2012. Rister came to the Railroad Commission from Gov. Rick Perry's office, where he served as Director for Administration from 2010 to 2012. Prior to serving in the Governor's Office, Rister worked as Executive Director for the Texas Legislative Council, and previous to that he served as a senior advisor to Lt. Gov. David Dewhurst.

Andrew Ross, Senior Hydrogeologist, Water Quality Division, Colorado Department of Public Health and Environment

Andrew Ross is the senior hydrogeologist in the Water Quality Control Division of the Colorado Department of Public Health and Environment (CDPHE). He has been with the Water Quality Control Division since 2000, and is currently the CDPHE representative on the Board of Examiners of Water Well

Construction and Pump Installation Contractors. Ross works with staff from the Colorado Oil and Gas Conservation Commission on numerous issues, including UIC Class II permitting, aquifer exemptions from UIC Class II permits, and implementation of ground water quality standards. He represented CDPHE at EPA's June 2013 technical workshop on Water Acquisition Modeling. Ross has a Bachelor's degree in Geological Engineering from the Colorado School of Mines and Master's degree in Geology from the University of Utah.

Leslie Savage, Chief Geologist, Oil and Gas Division, Railroad Commission of Texas

Leslie Savage is the Chief Geologist for the Oil and Gas Division of the Railroad Commission of Texas. Over her almost 30 years of employment with the Commission, Savage helped develop and/or supervised the Commission's programs for underground injection control, surface waste management, hazardous oil and gas wastes, naturally occurring radioactive material, waste minimization, and geologic storage of carbon dioxide. Savage currently is responsible for coordinating rulemaking for the division, coordinating with federal and other state agencies, and water quality certification of federal permits. She has represented the Commission in several state and national organizations, including the Texas Ground water Protection Committee, the Executive Committee of the Coastal Coordination Council, the Governor's Environmental Task Force, and the Interstate Oil and Gas Compact Commission, and currently is on the boards of the national Ground Water Protection Council and the State Review of Oil and Natural Gas Environmental Regulations, Inc. (STRONGER, Inc.). Savage graduated from the University of Texas at Austin in 1982 with a BS in Geology.

Mo Shafii, Assistant Chief of Water Division, Arkansas Department of Environmental Quality

Mo Shafii is the Assistant Chief of the Water Division for the Arkansas Department of Environmental Quality. He has been with the Water Division, NPDES Branch, since 1990 having worked as a permit writer, Technical Assistant Manager. Shafii has a MS degree in Environmental Engineering from the University of Arkansas, MS degree in Mechanical Engineering from Pittsburg State University, Kansas, and a BS degree from Southern University in Baton Rouge, Louisiana. Prior to 1990 Shafii was an instructor at UALR and Southern Technical College while working on his PhD.

Keith Sheedy, Technical Advisor, Office of Air, Texas Commission on Environmental Quality

Keith Sheedy is a Technical Advisor to TCEQ's Deputy Director of the Office of Air, where he provides advice on technical and policy matters. He joined the Monitoring Operations Division of the Texas Air Control Board in 1988. In 1991, he moved to the Engineering Services Section, where he developed air regulations and rule interpretations, along with addressing technical enforcement matters between regulated companies and the agency. From 2003 to 2012, Sheedy served as a technical advisor to TCEQ's Chief Engineer. He received a BS degree in Mechanical Engineering from Texas Tech University in 1987.

Kent Wilkins, Assistant Chief, Planning and Management Division, Oklahoma Water Resources Board

Kent Wilkins is the Assistant Chief for the Planning and Management Division of the Oklahoma Water Resources Board. Wilkins has been with the Board since 1990 and is currently responsible for multiple programs at the Board including Water Rights Permitting, Well Drilling, Floodplain Management, Dam Safety and Technical Studies. He has performed technical investigations related to ground water basin studies, water right permit inspections, ground water remediation systems and numerous other water projects. He has been involved in environmental hydrogeology and geology for over 25 years. Prior to 1990, Wilkins worked as a well-site geologist at numerous oil and gas drill sites and as a consulting geologist investigating leaking underground fuel storage tank sites. He received his BS degree in Geology and has completed graduate level hydrogeology coursework from Oklahoma State University.

Hillary Young, Engineering Manager, Oklahoma Department of Environmental Qualtiy

Hillary Young has been Engineering Manager of the Underground Injection Control and Solid Waste Permitting Unit for the Oklahoma Department of Environmental Quality since 2008. ODEQ's UIC program handles permitting and compliance for Class I, III, IV and the majority of Class V injection wells in Oklahoma. The Solid Waste Permitting Unit is responsible for permitting RCRA Subtitle D facilities in Oklahoma. Prior to her current position, Young was a permit engineer at ODEQ for the UIC program and RCRA Subtitle C Permitting Unit for 11 years. She is a graduate of the University of Oklahoma with a BS degree in Petroleum Engineering and MS degree in Civil Engineering, and is a licensed Professional Engineer in the state of Oklahoma.